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February 1, 2011

**Ex Parte via Electronic Filing**

Marlene H. Dortch  
Office of the Secretary  
Federal Communications Commission  
445 12th Street, SW  
Washington, D.C. 20554

Re: *Developing a Unified Intercarrier Compensation Regime*, CC Dkt. 01-92; *Federal-State Joint Board for Universal Service*, CC Dkt. No. 96-45; *High-Cost Universal Service Support*, WC Dkt. No. 05-337; *Connect America Fund*, WC Dkt. No. 10-90; *A National Broadband Plan for Our Future*, GN Dkt. No. 09-51

Dear Ms. Dortch:

Google strongly supports the FCC's goal of reforming and modernizing our nation's communications policy framework to reflect the growing opportunities and challenges of the 21<sup>st</sup> century. The FCC took an important first step in the *National Broadband Plan* by establishing an initial broadband universalization target (actual speeds of 4 Mbps down and 1 Mbps up), to ensure that everyone in the U.S. has access to and can fully utilize a basic set of online communications applications and functions.<sup>1</sup> A vital part of this new policy framework also should be to update the focus of our nation's universal service support program from voice-only phone services to ubiquitous broadband network access. Google agrees that every American should have affordable access to robust broadband service at home, just as a key 20<sup>th</sup> century goal was to ensure that every American home had a telephone.<sup>2</sup>

Reform also necessarily requires revamping today's intercarrier compensation regime, which is increasingly strained by technology and market advances. Today, network and service providers, the FCC, courts, and others struggle to apply legacy Federal and State rules – designed for a voice-based, circuit-switched, analog telephony system – ever-evolving technologies and cutting-edge services. As carriers upgrade their communications infrastructure to include broadband and Internet Protocol (IP) capabilities, and services and features leveraging these capabilities are being deployed, it

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<sup>1</sup> Omnibus Broadband Initiative, *Connecting America: The National Broadband Plan*, at 135, GN Dkt. 09-51 (rel. Mar. 16, 2010) (“*National Broadband Plan*”).

<sup>2</sup> See Reply Comments of Google Inc. at 38, GN Dkt. 09-51 (filed Jul. 21, 2009) (the impact of ubiquitous adoption of broadband is clear: “building out broadband infrastructure to enable ubiquitous access to the Internet will bring enormous social and economic benefits.”).

has become progressively more burdensome and difficult to squeeze traffic exchange into voice telephony rate structures and jurisdictional assumptions. This traditional voice system continues to drive our nation's network interconnection and compensation regimes, even as we increasingly live in an online data world. The Commission correctly has assessed that the ongoing uncertainties, delays, and lost opportunities are "stalling the development of the broadband ecosystem," and "hindering investment and the introduction of new IP-based services."<sup>3</sup> Unless the Commission acts rapidly, however, legacy compensation regulations will "become a drag on the transition to a more modern and efficient use of resources."<sup>4</sup> Simply put, our national goals demand swift implementation of a forward-looking institutional framework governing IP and broadband traffic exchange.

### **Broadband Traffic Exchange Principles**

Google suggests the following five overarching principles to guide the FCC's development of a uniform framework for the origination, exchange, and termination of IP and broadband communications traffic. Specifically, a broadband traffic exchange (BTE) framework should:

- 1. Promote deployment of next generation technology/broadband networks** – Our country is transitioning from a circuit-switched legacy network to broadband and IP-based communications.<sup>5</sup> As the FCC explained in the *National Broadband Plan*, the network increasingly serves as "a platform over which multiple IP-based services – including voice, data and video – converge."<sup>6</sup> This "convergence in communications services and technologies creates extraordinary opportunities to improve American life and benefit consumers."<sup>7</sup> Yet, while broadband has been successfully deployed in many areas, there is much to be done to meet our nationwide goals.<sup>8</sup> The FCC has already found that "the current system creates disincentives to migrate to all IP-based

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<sup>3</sup> *National Broadband Plan* at 142.

<sup>4</sup> *Id.* at 59.

<sup>5</sup> *Id.* at Ch. 4.5. *See also* "Comment Sought on Transition from Circuit-Switched Network to All-IP Network," NBP Public Notice # 25, DA 09-2517 (rel. Dec. 1, 2009) ("NBP PN # 25") ("Broadband itself is a leading indicator of the major transitions in communications technology and services provided by incumbents and new entrants into virtually every segment of the communications industry.").

<sup>6</sup> *National Broadband Plan* at 59.

<sup>7</sup> *Id.*

<sup>8</sup> *Id.* at 138-139 (closing the broadband availability gap); NTIA, "Exploring the Digital Nation: Home Broadband Internet Adoption in the United States," Ch. 5, Main Reason for Non-adoption of Home Broadband Internet (Nov. 2010) *available at* [http://www.ntia.doc.gov/reports/2010/ESA\\_NTIA\\_US\\_Broadband\\_Adoption\\_Report\\_11082010.pdf](http://www.ntia.doc.gov/reports/2010/ESA_NTIA_US_Broadband_Adoption_Report_11082010.pdf).

networks.”<sup>9</sup> Therefore, BTE policies must create incentives for all last-mile providers to invest in broadband network upgrades.

- 2. Promote development of new and innovative services** – The services we use to communicate have undergone a radical change during the last several decades. What once was thought of as a voice service is increasingly just a software application, able to operate on any number of broadband platforms. Indeed, broadband-enabled communications go well beyond voice and now include email, real-time messaging, website interactivity, basic video chat, file sharing, and conferencing. All agree that the Internet – which has been called the most transformational communications breakthrough since the printing press<sup>10</sup> – has unleashed massive service creativity and innovation, and has produced new ways to communicate, share information, and interact. Broadband-enabled services also create a firm foundation for national and global economic growth and opportunity. BTE policies should encourage the continued development and roll-out of innovative online services. As one implication, the FCC should avoid favoring legacy communications services at the expense of new, emerging technologies.
- 3. Reflect the fundamental shift in traffic flows** – The governing policy framework also must reflect evolving communications traffic flows. The Internet does not recognize jurisdictional boundaries, instead operating on an end-to-end, modular, interconnected basis across the country (and the world). As AT&T and others have recognized, the historical federal/state jurisdictional division “is fundamentally incompatible with IP-based technology and the multiple, simultaneous communications that IP-based technology enables.”<sup>11</sup> Likewise, Internet traffic typically is not exchanged between different networks using the per-minute charges that were a byproduct of the legacy voice telephone system, but instead is exchanged according to bandwidth used (or subject to bill-and-keep “peering” arrangements). Industry and government have expended significant resources attempting to fit today’s “square peg” traffic configurations into yesterday’s “round hole” services buckets. Going forward, the policy framework should enable carriers to exchange all traffic in a unified, non-geographic manner that is not dependent on per-minute rates and, thus, better reflects the move to high-speed, high-capacity data-centric networks.
- 4. Create incentives for efficient network use of by carriers and users** – The FCC’s policy framework should promote maximum efficiency in network use. Built-in incentives to retain and/or expand the voice-centric regime can “actually hinder[] the transformation of America’s networks to broadband”<sup>12</sup> by skewing the network

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<sup>9</sup> *National Broadband Plan* at 142.

<sup>10</sup> *Preserving a Free and Open Internet: A Platform for Innovation, Opportunity, and Prosperity*, Prepared Remarks of Chairman Julius Genachowski, The Brookings Institution, Washington DC, (Sept. 21, 2009) available at <http://www.openinternet.gov/read-speech.html>.

<sup>11</sup> Comments of AT&T, Inc. at 19, NBP PN # 25 (filed Dec. 21, 2009).

<sup>12</sup> *National Broadband Plan* at 142.

utilization decisions of carriers and users. Though some carriers seek to maintain the *status quo* at the expense of new services, and urge the FCC to extend per-minute charges beyond interconnecting carriers to Internet applications and services, the FCC should reject the push in this direction. Broadband networks should be fully utilized to benefit users, not constrained by artificial carrier compensation rules. Traffic exchange policies also should affirmatively promote sound and efficient engineering, including network planning and design with an eye towards facilities and technology upgrades that meet future needs and create seamless, well-functioning networks.

- 5. Focus on market signals and network usage rather than regulatory categories** – The new framework should be based on a proper understanding of market signals, which means moving away from historical mechanisms that no longer track the development and use of communications networks. The disparities in treatment of legacy regulatory traffic categories, including variations in rate structures and rate levels, as well as geographic assumptions regarding traffic and multi-jurisdictional rates, do not match the evolving realities of IP traffic and services. To avoid the market-skewing consequences of today’s intercarrier compensation system, broadband traffic exchange should be harmonized and made non-geographic, which will help “eliminate inefficient economic behavior.”<sup>13</sup> It is also important that subsidies to achieve targeted policy goals (*e.g.*, to extend broadband to unserved areas and to assist providers that already offer broadband service where necessary) be made explicit rather than hidden.

#### **Implementing a Broadband Traffic Exchange Framework**

The FCC has identified key issues that will affect whether existing regulation will remain an obstacle to making the switch to a broadband IP environment.<sup>14</sup> Following the principles delineated above, Google urges the following for a BTE policy framework:

- **TIMING** – The importance of universal broadband access demands decisive and rapid FCC action. The FCC should quickly establish a specific transition plan to phase-out legacy traffic exchange charges and create incentives to upgrade infrastructure to robust broadband capability. As others have noted, “the time for platitudes is over.”<sup>15</sup> Rather than the three stage transition described in the *National Broadband Plan* that would last until 2020, regulatory changes to create a unified, non-geographic broadband-oriented framework should be implemented fully by the end of 2015. Consistent with its overall approach to broadband, the FCC should adopt benchmarks and timeliness to gauge progress.
- **UNIVERSAL ACCESS AND REGULATORY STRUCTURE** – The FCC explained that our nation needs to make “the tough choice to shift existing support that is not advancing

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<sup>13</sup> *Id.* at 149.

<sup>14</sup> *Id.* at Ch. 4.

<sup>15</sup> Comments of AT&T, Inc., at 20, NBP PN # 25 (filed Dec. 21, 2009).

public policy goals.”<sup>16</sup> To deliver affordable home broadband access to all Americans as soon as possible, the FCC should reduce, and ultimately phase-out, per-minute rates for the origination and termination of telecommunications traffic through a staged transition. As the FCC suggested, the agency could start with intrastate reductions and then “reduce interstate rates to reciprocal compensation rate levels for those carriers whose interstate rates exceed their reciprocal compensation rates, and reduce originating access rates.”<sup>17</sup> The FCC’s reform should also make any subsidies required to attain universal broadband explicit in the universal service mechanism, as directed by Section 254 of the Communications Act.<sup>18</sup> While it is important that service providers understand and can plan for this conversion, meeting our nation’s broadband goals means accepting that “cost recovery” for circuit-switched networks cannot include indefinite continuation of outmoded networks.

- **JURISDICTION** – Though Google believes the FCC has ample statutory authority to implement a unified and harmonized framework across jurisdictional boundaries, the FCC should expeditiously seek from Congress any additional authority it believes is required to effectuate this transition.
- **INTERCONNECTION** – Google agrees with the FCC that interconnection – where customers of one service provider can communicate with customers of another – is a key component of our communications system. As we move to an all IP and broadband world, interconnection obligations must keep pace, ensuring myriad communications networks will be able to interconnect easily and efficiently. While replicating legacy rate setting and price regulation is not required, there must be a government backstop to ensure that network providers do not impede traffic, whether by failing to offer reasonable terms or refusing to provide viable interconnection for IP traffic.
- **TREATMENT OF VOIP** – The advent of voice over IP (VoIP) applications has created considerable consumer benefits, including lower prices, greater choice, and a slew of advanced features. Indeed, VoIP technologies have helped foster the kind of robust competition in the voice and data arena that otherwise has eluded the architects of the Telecommunications Act of 1996 and its implementing regulations. In Google’s view, application of the legacy compensation regulation – namely, per-minute carrier access charges – to all VoIP applications would be a grave mistake. Applying today’s access charge regime to VoIP would stifle consumer demand for broadband, and create disincentives to invest in the development of new IP-enabled voice applications. Instead, the appropriate classification and compensation for carrying VoIP applications should be addressed as part of a comprehensive reform effort, one which establishes the exchange of traffic at uniform and cost-based rates. The

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<sup>16</sup> *National Broadband Plan* at 10.

<sup>17</sup> *Id.* at 149.

<sup>18</sup> 47 U.S.C. § 254(e) (USF support shall be “explicit and sufficient to achieve the purposes of this section”).

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Commission's reforms must not sacrifice the technologies of the future in the name of backward-looking policies that increasingly make no sense.

We look forward to working with the Commission in the months ahead as it strives to fashion a new policy framework for intercarrier traffic origination, exchange and termination that actually works with, rather than against, the surging tide of technological and market-based innovations.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'R. S. Whitt', written in a cursive style.

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